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## ALIGNMENTS

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29..666 /note= "mature protein" Location/Qualifiers Green JL, Manners JM, Marcus JP;

mays antimicro

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W62828
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 34-36; 96pp; English.
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N-PSDB; V42310.
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                                                                                                                         96.8%;
95.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antimicrobial protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "mature protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Green JL,
                                                                            Score 242; DB 19;
Pred. No. 1.2e-19;
2; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Manners JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Marcus
                                                                                                                                                                      Length 666;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 666;
                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                       and mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                     Gaps
                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
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RESULT 4
W62831
ID W62831
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W62830
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                                                                                                                                                                                QΥ
  CC CXX
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                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                          Novel anti-microbial protein from e.g. Macadamia integrifolia useful for controlling microbial infestations of plants or man \ensuremath{\mathsf{Max}}
Theobroma cacao
                     antimicrobial protein; infestation; control.
                                         Theobroma cacao antimicrobial protein.
                                                               27-OCT-1998 (first entry)
                                                                                    W62831;
                                                                                                        W62831 standard;
                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                animals.
                                                                                                                                                                                                                                                                                       The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian
                                                                                                                                                                                                                                                                                                                        Claim 1; Page 43-45;
                                                                                                                                                                                                                                                                                                                                                                           WPT; 1998-377279/32.
N-PSDB; V42316.
                                                                                                                                                                                                                                                                                                                                                                                                          Bower NI, Goulter KC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Macadamia integrifolia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antimicrobial protein; infestation; control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Macadamia integrifolia antimicrobial protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-OCT-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W62830 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                              (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-JUL-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9827805-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peptide
                                                                                                                                                          Local Similarity nes 40; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ω
                                                                                                                                                                                                                                                           625 AA;
                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                    96AU-0004275.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97WO-AU00874.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "signal peptide"
29..666
                                                                                                        Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "mature protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                               94.0%;
93.0%;
                                                                                                                                                                                                                                                                                                                       96pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                         Green JL,
                                                                                                         525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              625
                                                                                                                                                                                                              Score 235; DB 19;
Pred. No. 6.9e-19;
                                                                                                        AΑ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ΑA
                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                          Manners JM,
                                                                                                                                                                                                                                                                                                                                                                                                          Marcus
                                                                                                                                                                                                                         Length 625;
                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                             mammals
                                                                                                                                                                                                      0;
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RESULT
R20181
  В
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
 The inventors claim a 67\ kD and fragments, and encoding DNAs. T
                                               Recombinant cocoa proteins - are responsible beans and produced in large quantities using expression vectors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian animals.
                             Claim 4; Fig 2; 59pp; English.
                                                                                       WPI; 1992-024418/03.
N-PSDB; Q20377.
                                                                                                                                                       11-JUN-1990;
                                                                                                                                                                           07-JUN-1991;
                                                                                                                                                                                                                 WO9119801-A
                                                                                                                                                                                                                                   Theobroma cacao
                                                                                                                                                                                                                                                      Cocoa; flavour; vicilin; seed
                                                                                                                                                                                                                                                                        Sequence encoded by
                                                                                                                                                                                                                                                                                          16-APR-1992 (first entry)
                                                                                                                                                                                                                                                                                                                R20181;
                                                                                                                                                                                                                                                                                                                                 R20181 standard; Protein; 566 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel anti-microbial protein from e.g. Macadamia useful for controlling microbial infestations of
                                                                                                                 Spencer ME, Hodge R,
                                                                                                                                     (MRSC ) MARS UK LTD.
                                                                                                                                                                                              26-DEC-1991.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 47-49; 96pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI: 1998-377279/32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bower NI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9827805-A1
                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
nes 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                  78
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                                                                                                                                                                                                                                                                                                                                                                               eeelqrqyqqcqgrcqeqqqqqqqqcqrkcweqykeqe 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Goulter KC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       525 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                       90GB-0013016
                                                                                                                                                                           91WO-GB00914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96AU-0004275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97WO-AU00874
                                                                                                                                                                                                                                                                                                                                                                                                                     44.8%; Score 112; DB 19;
47.5%; Pred. No. 3.1e-05;
ative 10; Mismatches 11;
                                                                                                                                                                                                                                                                         67 kD T.
                                                                                                                  Deakin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Green JL,
                                                                                                                                                                                                                                                                        cacao protein cDNA
                                                                                                                  EA,
                                                                                                                                                                                                                                                    storage protein
 1 31
The
 kD T.
47 kD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Manners JM,
                                                                                                                  Ashton
cacao protein, and and 31 kD proteins
                                                                                                                  s
                                                         for flavour in cocoa
yeast and bacterial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Marcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 integrifolia -
plants or mammals
                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 525;
                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JP;
 are
                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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RESULT W62841 ID W6 XX AC W6

W62841 standard; Protein; 28 AA

W62841;

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                     Qy
                                                                                                     RESULT
W62832
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Best Local
                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                    Sequence
                                                                                                                            animals.
                                                                                                                                    The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and man
                                                                                                                                                                    Claim 1; Page 49-51; 96pp; English.
                                                                                                                                                                                           Novel anti-microbial protein from e.g. Macadamia integrifolia useful for controlling microbial infestations of plants or mar
                                                                                                                                                                                                                               WPI; 1998-377279/32.
                                                                                                                                                                                                                                                                                                                                                                                          Gossypium hirsutum
                                                                                                                                                                                                                                                                                                                                                                                                                antimicrobial protein; infestation; control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          derived from the 67 kD precursor. T. cacao protein cDNA was detected in a cDNA library prepared from immature cocca beans RNA using a probe based on the AA sequence of a CNBr peptide common to the 47 kD and 31 kD polypeptides. Homology searches revealed close homologies between the 67 kD polypeptide and the vicilins, which are seed storage proteins.
                                                                                                                                                                                                                                                    Bower NI,
                                                                                                                                                                                                                                                                                                                                               02-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                     WO9827805-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                      Gossypium hirsutum antimicrobial protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-OCT-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W62832;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W62832 standard; Protein; 590 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                  20-DEC-1996;
                                                                                                                                                                                                                                                                                                                       22-DEC-1997;
                                                                                                                                                                                                                                                                         (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY
                                            y Match 41.6%;
Local Similarity 47.5%;
hes 19; Conservative
 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78
          σ
edpgrryeecqqecrqqee--rqqpqcqqrclkrfeqeqq 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19;
                                                                                                                                                                                                                                                    Goulter KC,
                                                                                                    590 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        566 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                  96AU-0004275
                                                                                                                                                                                                                                                                                                                      97WO-AU00874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44.8%;
                                                                                                                                                                                                                                                   Green JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10;
                                          Score 104; DB 19;
Pred. No. 0.00027;
9; Mismatches 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 112; DB 13;
Pred. No. 3.4e-05;
0; Mismatches 11
                                                                                                                                                                                                                                                    Manners JM,
                                            10;
                                                                                                                                                                                                                                                    Marcus JP;
                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     566;
                                                                                                                                     mammalian
                                                                                                                                                                                            mammals
                                            <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                          Gaps
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Best Local
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        (GEMY ) GENETICS INST INC
                             04-NOV-1998;
07-NOV-1997;
                                                              06-NOV-1998;
                                                                                   20-MAY-1999
                                                                                                       WO9924469-A1
                                                                                                                           Homo sapiens
                                                                                                                                                         Secreted protein; human; tissue marker; genetic disease; gene therapy; veterinary medicine; cell proliferation; immunostimulant; infection; immunosuppressant; autoimmune disease; organ rejection; tumour; anemia; haematopolesis; wound healing; fertility control; chemotaxis; analgesic
                                                                                                                                                                                                              Human secreted protein (clone ct489_14).
                                                                                                                                                                                                                                    27-JUL-1999
                                                                                                                                                                                                                                                         Y16785
                                                                                                                                                                                                                                                                            Y16785 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel anti-microbial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bower NI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-JUL-1998.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stenocarpus sinuatus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antimicrobial protein; infestation; control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Stenocarpus sinuatus antimicrobial protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-OCT-1998
                                                                                                                                                 thrombolytic;
                                                                                                                                                                                                                                                                                                                                          4 DPQTDCQQCQRRCRQQESGPRQQQYCQ 30
                                                                                                                                                                                                                                                                                                                                2 dpirqqqlcqmrcqqqekdprqqqqck 28
                                                                                                                                                                                                                                                                                                 œ
                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goulter KC,
                                                                                                                                                                                                                                                                                                                                                                                                                            28
                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                            AΑ;
                                                                                                                                                 haemophilia;
                               98US-0185936.
97US-0965789.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96AU-0004275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97WO-AU00874
                                                              98WO-US23829
                                                                                                                                                                                                                                                                            Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96pp; English.
                                                                                                                                                                                                                                                                                                                                                                                  34.8%;
59.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Green JL,
                                                                                                                                                 infarction;
                                                                                                                                                                                                                                                                                                                                                                         2
                                                                                                                                                                                                                                                                                                                                                                                   Score 87; DB 19;
Pred. No. 0.0012;
                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Manners JM,
                                                                                                                                                 antimicrobial
                                                                                                                                                                                                                                                                                                                                                                                             DB 19;
                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                             Length 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Marcus
                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                          analgesic;
                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                         0;
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RESULT
W62837
ID W6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention provides polynucleotides (x60579-x60687) encoding specific secreted human proteins (x16779-y16787). The nucleic acid sequences are deposited under the accession number ATCC 98580. The polynucleotides care used as tissue markers, chromosomal tags, for diagnosis of genetic diseases, to generate anti-protein or anti-DNA antibodies, also as contritional sources and supplements and in gene therapy. The secreted proteins are useful therapeutically, in human or veterinary medicine, ce.g. for modulating cell proliferation or differentiation, as cimmunostimulants or immunosuppressants (for treating infections, cautoimmune disease, organ rejection, or to induce tumour immunity), as cregulators of haematopoiesis (e.g. for treating anemia or in conjunction with tumour therapy), to stimulate growth of tissue for wound healing, as cretility control agents, for regulating chemotaxis or chemokines (e.g. for directing cells to tumours or sites of infection), as haemostatic and thrombolytic agents (e.g. in treatment of haemophilia or infarctions), as antimicrobial agents, for modifying biorhythms, appetite, or metabolism, ca antibodies, used as diagnostic immunoassay reagents also (when cut and constraints) and treating e.g. cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
          Novel anti-microbial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals
                                                                                                                                                                                                                        02-JUL-1998
                                                                                                                                                                                                                                                                                                                    antimicrobial protein; infestation; control
                                                                                                                                                                                                                                                                                                                                                    Hordeum vulgare antimicrobial protein.
                                                                                                                                                                                                                                                                                                                                                                                   27-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                   W62837;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   W62837 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acid encoding secreted human proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1999-327362/27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Agostino MJ, Evans C,
Merberg D, Racie LA,
                                                             WPI; 1998-377279/32
                                                                                           Bower NI,
                                                                                                                           (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY
                                                                                                                                                           20-DEC-1996;
                                                                                                                                                                                         22-DEC-1997;
                                                                                                                                                                                                                                                        W09827805-A1.
                                                                                                                                                                                                                                                                                    Hordeum vulgare.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity nes 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 PQT-DCQQCQRRCRQQESGPRQQQ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pqlgdtqncqlrcrdrdlgpqpsqaglegasespydravlisacergcrlfsic 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30; Page 98-100; 107pp; English.
                                                                                           Goulter KC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           342 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                           96AU-0004275
                                                                                                                                                                                         97WO-AU00874
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26.6%;
31.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Jacobs K,
Treacy M;
                                                                                           Green JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 66.5; D
Pred. No. 2.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AΑ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                           Manners JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lavallie ER,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----YCQRRCK--EIC 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
                                                                                           Marcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           мссоу јм;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                           JP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           342;
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Query Match
Best Local Similarity
Watches 11; Conserv
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                  δÃ
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R21079
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SXCCCXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local 9
                                                                                                        The peptide (SEQ ID NO 1) was purified from public corn variety B73 and propriety corn variety MH18. It is basic and has has a total mol. wt. of 3900 daltons. The peptide sequence was used to design probes which were used to screen a maize genomic or cDNA library. The isolated CMIII gene can be used to prepare an expression vector for prodn. of recombinant CMIII for use in controlling plant pathosee also Q20272 and 3.
                                                                                       Sequence
                                                                                                                                                                                                                    Use of maize seed peptide CMIII and DNA encoding it or inhibiting plant pathogenic microorganisms.
                                                                                                                                                                                                                                                                       Duvick JP, Rood TA,
                                                                                                                                                                                                                                                    WPI; 1992-010214/02.
                                                                                                                                                                                                                                                                                                               05-JUN-1990;
                                                                                                                                                                                                                                                                                                                                  05-JUN-1991;
                                                                                                                                                                                                 Example 2; Page 5; 21pp; English.
                                                                                                                                                                                                                                                                                          (PION-) PIONEER HI-BRED INT
                                                                                                                                                                                                                                                                                                                                                     08-JAN-1992
                                                                                                                                                                                                                                                                                                                                                                         EP465009-A.
                                                                                                                                                                                                                                                                                                                                                                                                                Maize; CMIII;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Antimicrobial maize
                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-APR-1992 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R21079 standard; Peptide; 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           animals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1;
                11 OCORRC-ROQESGPROQOYCORRCK 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42 qqcvqrcrqer--pr---ysharcvqecrddqq 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10 QQCQRRCRQQESGPRQQQYCQRRCKEICEEEEE 42
  σ
ecrrqclrrhegqpyetqecmrrcr 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 60-62;
                                                                                       35 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       637
                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                corn; pathogen
                                                                                                                                                                                                                                                                                                              90US-0536127
                                                                                                                                                                                                                                                                                                                                  91EP-0305064.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide,
                                                 25.8%;
44.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96pp; English
                                                                                                                                                                                                                                                                       Rao AG
                                      6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7;
                                               Score 64.5; DB Pred. No. 0.49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 66.5; D
Pred. No. 4.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
                                                          DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19;
                                      7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                         Length 35;
                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                             for killing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         637;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                     Gaps
                                      1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
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RESULT

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RESULT 12
W62836
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Best Local Similarity
Matches 11; Conserv
Bower NI,
                                                                                                                                 02-JUL-1998
                                                                                                                                                                                                                               antimicrobial
                                                                                                                                                                                                                                                                                                                               W62836;
                                                                                                                                                                                                                                                                                                                                                               W62836 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and man
                                (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY.
                                                                20-DEC-1996;
                                                                                                 22-DEC-1997;
                                                                                                                                                                W09827805-A1
                                                                                                                                                                                                 Zea mays
                                                                                                                                                                                                                                                            Zea mays antimicrobial protein.
                                                                                                                                                                                                                                                                                              27-OCT-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                animals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Page 58-60; 96pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel anti-microbial protein from e.g. Macadamia useful for controlling microbial infestations of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1998-377279/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zea mays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antimicrobial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zea mays antimicrobial protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W62835;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W62835 standard; Protein; 593 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9827805-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                            557 eeeersgrgecrrqclrrhegqpwetqecmrrcr 590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 QDDPQTDCQQCQRRC-RQQESGPRQQQYCQRRCK 34
Goulter KC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goulter KC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               593 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                               protein; infestation; control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein;
                                                                96AU-0004275.
                                                                                                 97WO-AU00874.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96AU-0004275
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25.8%; Score 64.5; 32.4%; Pred. No. 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            infestation;
Green JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Green JL,
                                                                                                                                                                                                                                                                                                                                                               33 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Manners JM,
Manners JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11;
Marcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Marcus JP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            integrifolia -
plants or mammals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 593;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
JP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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RESULT
R91705
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SQ CCC XXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 11; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
Proteins with anticoagulant and/or serine protease inhibitory activity, isolated from nematodes, are useful to inhibit blood coagulation. The proteins can be added to blood collection tubes defining the collection of mammalian plasma. They are also useful to prevent or inhibit thrombosis, and may be given alone or in combination with other therapeutic or in vivo diagnostic agents.
                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                 coagulation
                                                                                                                                                                                                                                                                                                                                                                                     Proteins with anticoagulant and/or serine protease inhibitory activity - isolated from nematodes and useful to inhibit blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1996-222007/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lauwereys MJ,
Vlasuk GP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUN-1995;
18-OCT-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W09612021-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ancylostoma caninum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACANAP; HPONAP; NamNAP; ACENAP; AduNAP; anticoagulant; nematode-extracted anticoagulant protein; serine protease; nematode; thrombosis; parasitic worm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel anti-microbial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals % \left( 1\right) =\left( 1\right) +\left( 1\right) 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1998-377279/32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bergum PW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AcaNAP23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CORV-) CORVAS INT INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence is that of an antimicrobial protein which used to control microbial infestations in plants and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QCQRRC-RQQESGPRQQQYCQRRCK 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ecrrqclrrhegqpwetgecmrrcr 30
                                                                                                                                                                                                                                                                       221; Fig 13A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T12951.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gansemans YGJ,
J, Messensjhl,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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94US-0326110.
95US-0461965.
95US-0465380.
95US-0486397.
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                                                                                                                                                                                                                                                                   243pp;
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                                                                                                                                                                                                                                                                       English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 63.5; D Pred. No. 0.6; 6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jespers LS, Laroche
Moyle M, Stanssens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Laroche YR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19;
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RESULT 14
Y30404
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Best Local S
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                                                                                             Lauwereys MJ,
Vlasuk GP;
                                                                                                                                                                                     05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
17-OCT-1995;
                                                                      WPI; 199
                                                                                                                                                                                                                                     19-APR-1996;
18-OCT-1994;
05-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The proteins can serve as immunogens to raise antibodies for use in the diagnosts and identification of NAP conc. levels in biological fluids, e.g. to detect mammalian infection with a parasitic worm. They can also be used as immunogens in prophylactic and therapeutic vaccines against parasitic worm infection. The proteins may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       double the clotting time of human plasma in prothrombin time assays when present at 10-50 nMol, and double the clotting time of human plasma in activated partial thrombin time assays when present
                                  Screening an isolated Protein domains
                                                                                                                                                                                                                                                                                                                                         US5955294-A
                                                                                                                                                                                                                                                                                                                                                                                         Nematode extracted anticoagulant protein; NAP; anticoagulant; serine protease inhibitor; NAP domain; factor VIIa/TF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Y30404;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        presence of factor Xa or a catalytically inactive factor Xa deriv., do not specifically inhibit the activation of factor VIIa in the absence of TF and do not specifically inhibit prothrombinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               americanus or Heligomosmoides polygyrus.
The proteins pref. have 2 NAP domains and specifically inhibit the catalytic activity of the factor VIIa/TF complex in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The anticoagulant proteins are pref. derived from Ancylostoma caninum, A. ceylanicum, A. duodenale,
                                                                                                                                                                                                                                                                                          19-APR-1996;
                                                                                                                                                                                                                                                                                                                   21-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                  Ancylostoma
                                                                                                                                                                                                                                                                                                                                                                                                                               Nema tode
                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y30404 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             at 10-100 nMol
                                                                                                                                                              (CORV-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12 CQRRCRQQESGPRQ-----QQYCQRRCK-EICEEEEEY 43
                                                                      1999-539569/45
DB; Z10452.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ctgkpsekecgpherldcgnkkpcerkckietseeeddy
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13; Conser
                                                                                                                                                              CORVAS INT INC
                                                                                                                                                                                                                                                                                                                                                                                                                               extracted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  107 AA;
                                                                                                                        Gansemans YGJ,
J, Messens JHL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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95US-0465380.
95US-0486397.
95US-0486399.
                                                                                                                                                                                                                                                                                          96US-0634641
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                                                                                                                                                                                                                                                     94US-0326110
                                                                                                                                                                                                                                                                 96US-0634641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                              anticoagulant protein AcaNAP23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25.0%;
                                             protein for Nematode-extracted Anticoagulant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10;
                                                                                                                        Moyle M, Stanssens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 62.5;
Pred. No. 2.
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Example 12; Fig 13A; 197pp; English

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RESULT
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Best Local
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                         This is a mouse protamine 1. This is used in a method for producing a nucleic acid-bound polypeptide. The method comprises producing a fusion gene containing the polypeptide and a nucleic acid-binding motif, binding a nucleic acid to the polypeptide as asoluble fraction, and purifying the nucleic acid-bound polypeptide from the soluble fraction. When the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          each assay, where prolongation of clotting is calculated as fold elevation of clotting time relative to a baseline clotting value, where a doubling of clotting time is deemed a two-fold elevation; and calculating a PT to aPTT prolongation ratio, where a ratio at least one is indicative of factor VIIa/TF inhibitory activity. The method is useful for determining if a protein has factor VIIa/TF inhibitory
                                                                                                                                                                                                                                                                    Nucleic acid-bound polypeptide - useful as immunoassay reagent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nucleic acid-binding motif; HBc; protamine 1; mouse; diagnosis; HCV core polypeptide; immunoassay; detection; antigen; disease; Hepatitis C virus; infection.
                                                                                                                                                                                                                                                                                                                                                                  WPI; 1997-529030/49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EP805160-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W33694 standard; peptide; 51 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          isolated protein in an ex vivo prothrombin time (PT) assay and an ex vivo activated partial thromboplastin time (aPTT) assay; calculating prolongation of colotting effected by the isolated protein in each of the PT and aPTT assay, with respect to a baseline clotting value for
                                                                                                                                                   This is a mouse protamine 1. This is used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (FJRE ) FUJIREBIO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mouse protamine 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence represents a nematode extracted anticoaguiant protein (NAP). The protein has activity as an anticoaguiant and/or serine protease inhibitor. The protein contains at least one NAP domain which has selective inhibitory activity for factor VIIa/TF. The specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    activity.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Takemura F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            107
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                                                                                                                                                                                                               32-33; 38pp; English.
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nucleic acid-bound
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                                                                                                                                                                                                                                                  polypeptide can be used as an immunoassay reagent for detecting the antigen or an antibody to the antigen, especially in an agglutination assay using particles coated with the nucleic acid-bound polypeptide methods can be applied to diagnosis of disease and infection, especial for the detection of HBV and HCV polypeptides. The nucleic acid-bound
                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                             polypeptides may be is not.
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                                                                                              CQQCQRRCRQQESGPRQQQYCQRRCKEICEEEEEY
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                                                                                                                           Conservative
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